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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/672,192	09/26/2003	Matthew J. McHale	2003P14625US	8944

7590 01/03/2005

Siemens Corporation
Intellectual Property Department
170 Wood Avenue South
Iselin, NJ 08830

EXAMINER

PATEL, VISHAL A

ART UNIT	PAPER NUMBER
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3676

DATE MAILED: 01/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

84

Office Action Summary	Application No.	Applicant(s)	
	10/672,192	MCHALE ET AL.	
	Examiner	Art Unit	
	Vishal Patel	3676	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-10 and 12 is/are allowed.
- 6) ☒ Claim(s) 11 and 13-15 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>9/26/03</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 11 and 13-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Lebreton (US. 4,979,755).

Regarding claim 11: Lebreton discloses a labyrinth seal (seal in figure 3) for a steam turbine having a stationary housing through which extends a rotating element and the steam turbine includes steam flow regions of differential pressure (intended use). The labyrinth seal comprising a seal ring (12) comprising a plurality of N adjacent seal segments (one segment of ring 12, as seen in figure 3) adapted to be attached to the stationary housing. The labyrinth seal comprising at least N+1 flow dams (26) supported by one of the seal segments (each of the segment has two flow dams 26 placed in groove, as seen in figure 3).

Regarding claims 13-15: A method for reducing circumferential steam flow in a steam turbine having a stationary housing through which extends a rotating element and the steam turbine includes steam flow regions of differential pressure. The method comprising steps: forming a plurality of axially spaced-apart circumferential seal fins extending radially inward toward the rotating element (each segment of seal ring 12), forming a fin groove in each one of the seal fins (groove 32 formed on each end of each segment of the seal ring 12), disposing a flow dam (26) within the fin grooves and the flow dam extends radially inwardly toward the

Art Unit: 3676

rotating element. The flow dam is oriented perpendicular to the plurality of seal fins (as seen that flow dam 26 is perpendicular to the plurality of seal fins). The step of forming a fin groove further comprising forming a plurality of fin grooves in each one of the plurality of seal fins (each segment has two grooves 32 to receive the flow dams 26) and the step of disposing a flow dam further comprising disposing one of a like plurality of flow dams (two of 26) in a groove in each of the plurality of seal fins.

Allowable Subject Matter

3. Claims 1-10 and 12 are allowed.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Roberts and Vance.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vishal Patel whose telephone number is (703) 308-8495. The examiner can normally be reached on Monday through Friday from 7:30 PM to 4:00 PM (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather Shackelford, can be reached on (703) 308-2978.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-2168. Technology Center 3600 Customer Service is available at 703-308-1113. General Customer Service numbers are at 800-786-9199 or 703-308-9000. Fax Customer Service is available at 703-872-9325.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to: 703-872-9326, for formal communications for entry before Final action: or,
703-872-9327, for formal communications for entry after Final action.

Hand-delivered responses should be brought to Crystal Park Five, 2451 Crystal Drive, Arlington, Virginia, Seventh Floor (Receptionist suite adjacent to the elevator lobby).

Application/Control Number: 10/672,192

Page 4

Art Unit: 3676

VP

December 28, 2004

A handwritten signature in black ink, appearing to read 'Vishal Patel', with a stylized, overlapping flourish at the end.

Vishal Patel
Patent Examiner
Tech. Center 3600